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APPLICANT: Michael FÜRST - 2

SERIAL NO.: 10/680,013

EXAMINER: T. TRAN

GROUP: 1711

FILED: OCTOBER 7, 2003

TITLE: FILM COMBINATION WITH AT LEAST  
TWO LAYERS

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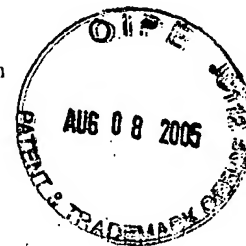
- 1- Petition for One -month Extension of Time
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- 3- Amendment in Response to Final Office Action
- 5- Copy of Extension of time
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Mail cert. dated August 5, 2005

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DUE DATE: 8/19/05

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RESPONSE UNDER 37 C.F.R. 1.116  
EXPEDITED PROCEDURE  
EXAMINING GROUP 2735

PATENT  
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: MICHAEL FÜRST - 2  
SERIAL NO.: 10/680,013 EXAMINER: T: TRAN  
FILED: OCTOBER 7, 2003 GROUP: 1711  
TITLE: FILM COMBINATION WITH AT LEAST TWO LAYERS

AMENDMENT IN RESPONSE TO FINAL OFFICE ACTION

MAIL STOP: AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

COPY

Dear Sir:

In response to the Final Office Action dated April 19, 2005, with the time for reply having been extended for one month from July 19, 2005 until August 19, 2005, please amend the above-identified patent application as follows:

~~Amendment to the Claims~~ are reflected in the listing of claims which begins on page 2 of this paper.

~~Remarks/Arguments~~ begin on page 10 of this paper.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A multilayer film having at least two film layers made from different materials;

wherein the film layers have different coefficients of thermal expansion; and

wherein said at least two film layers comprise a first film layer and a second film layer, said first film layer having a larger coefficient of ~~elongation~~ thermal expansion than said second film layer, whereby the second film layer faces towards a substrate to be covered with the multilayer film; and

wherein at least one of the film layers of the multilayer film is configured to provide a barrier against mineral oils.

Claim 2 (Canceled).

Claim 3 (original): The multilayer film according to claim 1, wherein at least one of the film layers is produced from a polyolefin.

Claim 4 (original): The multilayer film according to claim 1, wherein at least one of the film layers is produced from polypropylene.

Claim 5 (original): The multilayer film according to claim 1, wherein at least one of the film layers is produced from polyamide.

Claim 6 (original): The multilayer film according to claim 1, wherein at least one of the film layers is produced from polyethylene terephthalate (PET).

Claim 7 (original): The multilayer film according to claim 6, wherein the PET layer is oriented.

Claim 8 (original): The multilayer film according to claim 1, wherein at least one of the film layers is produced from polyacrylonitrile.

Claim 9 (original): The multilayer film according to claim 3, wherein at least one of the film layers is produced from a mixture or blend of members selected from the group consisting of polyolefin, polypropylene, polyamide, polyethylene terephthalate, and oriented polyethylene terephthalate.

Claim 10 (previously presented): The multilayer film according to claim 25, wherein at least one surface of the multilayer film is treated so that it has low bonding properties.

Claim 11 (original): The multilayer film according to claim 10, wherein at least one side of the multilayer film is treated with silicone.

Claim 12 (currently amended): The multilayer film according to claim 10, wherein said at least one surface is treated by coating said at least one surface with an anti-bonding agent is ~~applied to the multilayer film by coating.~~

Claim 13 (currently amended): The multilayer film according to claim 10, wherein said at least one surface is treated by incorporating an anti-bonding agent ~~is incorporated~~ in an outermost film layer.

Claim 14 (canceled).

Claim 15 (original): The multilayer film according to claim 1, wherein a barrier layer against oils, oxygen or UV radiation is provided between two adjacent layers.

Claim 16 (original): The multilayer film according to claim 15, wherein the barrier layer comprises a layer of lacquer.

Claim 17 (original): The multilayer film according to claim 1, wherein the individual film layers are combined on the basis of their thermal stability.

Claim 18 (original): The multilayer film according to claim 1, wherein the individual film layers are combined according to their mechanical strength.

Claim 19 (original): The multilayer film according to claim 1, wherein the individual film layers are combined according to their susceptibility to initial tearing or their tear propagation properties.

Claim 20 (original): The multilayer film according to claim 1, wherein a tie layer or an adhesive is provided between two adjacent layers.

Claim 21 (original): The multilayer film according to claim 10, wherein said at least two film layers comprise a first film layer and a second film layer, said first film being located

further away from the surface with low bonding properties and having a larger coefficient of elongation than said second film layer.

Claim 22 (original): A release film for bituminous membranes comprising the multilayer film of claim 1.

Claim 23 (original): A release film for self-adhesive sealing membranes comprising the multilayer film of claim 1.

Claim 24 (original): A release film for welded areas having overlap areas that are treated to be self-adhesive comprising the multilayer film of claim 1.

Claim 25 (previously presented): A multilayer film having at least two film layers made from different materials, wherein at least one film layer comprises a barrier layer against mineral oils.

Claim 26 (new): The multilayer film according to claim 1 wherein the second film layer is configured to provide a barrier against mineral oils.

Claim 27 (new): A method of using a film combination comprising the steps of:

(a) providing a multilayer film having at least two film layers made from different materials, wherein the film layers have different coefficients of thermal expansion and said at least two film layers comprise a first film layer and a second film layer, said first film having a larger coefficient of thermal expansion than said second film layer and the second film layer facing towards a substrate to be covered with the multilayer film, and wherein at least one of the film layers of the multilayer film is configured to provide a barrier against mineral oils; and

(b) using the multilayer film as a release film for bituminous membranes.

Claim 28 (new): A method of using a film combination comprising the steps of:

(a) providing a multilayer film having at least two film layers made from different materials, wherein the film layers have different coefficients of thermal expansion and said at least two film layers comprise a first film layer and a second film layer, said first film having a larger coefficient of thermal expansion than said second film layer and the second film layer facing towards a substrate to be covered with the multilayer film, and



wherein at least one of the film layers of the multilayer film is configured to provide a barrier against mineral oils; and

(b) using the multilayer film as a release film for self-adhesive sealing membranes.

Claim 29 (new): The method according to claim 28, wherein the multilayer film is used as a release film for roofing membranes.

Claim 30 (new): A method of using a film combination comprising the steps of:

(a) providing a multilayer film having at least two film layers made from different materials, wherein the film layers have different coefficients of thermal expansion and said at least two film layers comprise a first film layer and a second film layer, said first film having a larger coefficient of thermal expansion than said second film layer and the second film layer facing towards a substrate to be covered with the multilayer film, and wherein at least one of the film layers of the multilayer film is configured to provide a barrier against mineral oils; and

(b) using the multilayer film as a release film for welded membranes.

Claim 31 (new): The method according to claim 30, wherein the

multilayer film is used as a release film for welded membranes having overlap areas that are treated to be self-adhesive.

REMARKS/ARGUMENTS

The claims are 1, 3-13 and 15-31. Claim 1 has been amended to better define the invention. Claims 12 and 13 have been amended to improve their form, and new claims 26-31 have been added. Reconsideration is expressly requested.

Claims 1, 3-4, 10-13 and 15-24 were rejected under 35 U.S.C. 102 (b) as being anticipated by *Fürst U.S. Patent No. 5,998,015*. The remaining claims 5-9 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Fürst*, in view of *Kurfman et al U.S. Patent No. 4,115,619*.

Essentially, the Examiner has repeated the rejection previously made in the Office Action mailed June 29, 2004. The Examiner also stated that Applicant's arguments presented in the Amendment filed September 29, 2004 were not considered persuasive, because in the Examiner's view the laminate disclosed in *Fürst* would inherently have the same chemical and physical properties as those forth in the claims as then currently constituted.

The Examiner also considered the combination of *Fürst* with *Kurfman et al.* proper because *Kurfman et al.* was said to illustrate

that a laminate comprising a film made of polyamide, polyethylene terephthalate, or polyacrylonitrile as alternatives of polypropylene for the purpose of enhancing heat resistance, melt fluidity and chemical impact resistance. The Examiner also stated that the arguments presented did not show how the language of the claims distinguished over the cited references.

In response Applicant has amended claim 1, *inter alia*, to recite that at least one of the film layers of the multilayer film is configured to provide a barrier against mineral oils and has added new claims 27-31, each directed to a method of using a film combination, and respectfully traverses the Examiner's rejection for the following reasons.

As set forth in claim 1 as amended and in claim 25, Applicant's invention provides a multilayer film having at least two film layers made from different materials wherein at least one film layer is configured to provide a barrier against mineral oils. As set forth in new claims 27, 28 and 30, Applicant's invention provides a method of using a film combination in which a multilayer film is provided having at least two film layers made of different materials where the first film layer has the larger coefficient of thermal expansion than the second film layer and the second film

layer faces towards a substrate to be covered with the multilayer film. At least one of the film layers is configured to provide a barrier against mineral oils.

As recited in claim 27, the multilayer film is used as a release film for bituminous membranes. As recited in claim 28, the multilayer film is used as a release film for self-adhesive sealing membranes. As recited in claim 30, the multilayer film is used as a release film for welded membrane.

It is the task of the invention to create a cover and release film, particularly for webs that contain oil and/or bitumen which film prevents the oily components of the web that contains oil from diffusing out. In addition, delamination of the cover and release film from the bituminous web is to be prevented, as is the curl effect that frequently occurs. The curl effect is understood to be an independent separation of the cover and release film, particularly at the edges of the cover and release film, which separation is caused by swelling processes.

In order to prevent delamination and the curl effect, a material having a greater heat expansion coefficient is used on the outside of the cover and release films as recited in claims 1, 27,

28 and 30, thereby actually pressing the edges of the cover and release film against the web that contains oil. The curl effect is frequently further reinforced in that the oily substances of the web that contains oil and/or bitumen defuse into a cover and release film. As a result, the layer faces the web that contains oil swells up. This swelling causes the edges of the cover and release film to separate from the web that contains oil.

By configuring at least one of the film layers to provide a barrier against mineral oils as recited in claims 1, 25, 27, 28 and 30, swelling of the film layers is effectively prevented and thereby the main cause of the curl effect is eliminated.

The primary reference to *Fürst* fails to disclose or suggest a multilayer film having at least two film layers made from different materials wherein at least one film layer comprises a barrier layer against mineral oils or a method of using a multilayer film as a release film for bituminous membranes, self-adhesive sealing membranes or welded membranes. Although the Examiner has taken the position that the intermediate lacquer layer of *Fürst* would inherently have barrier characteristics, it is respectfully submitted that *Fürst* relates to a completely different film than that set forth in amended claim 1 or claim 25 or the release films

provided by the method of claims of 27, 28 and 30. The film described in *Fürst* serves as a water vapor barrier for use in motor vehicles, and it is respectfully submitted that one skilled in the art would not consider the flame-retardant lacquer in *Fürst* to be a barrier layer against mineral oils.

More specifically, the flame retardant lacquer of *Fürst* concerns a primer containing a large amount of chlorine. The primer does not have barrier characteristics but rather merely takes care of a separation of the polyolefin foil and the silicone layering.

The polyolefin foil itself is flame-retardant due to the addition of a halogen-containing flame inhibitor, for example, and also, the silicone layer. If, however, the polyolefin foil and the silicone layer are connected directly with each other, a catalytic function results between the two materials, which makes the whole system again burnable.

The flame-retardant lacquer avoids this effect. However, there are no barrier characteristics of the flame-retardant known nor are they desired.

Moreover, as more specifically recited in claim 8, Applicant's invention provides a multilayer film layer wherein at least one of the film layers is produced from polyacrylonitrile. There is no disclosure or suggestion in *Fürst* of the use of polyacrylonitrile and film layers in combination with a release film.

Like *Fürst*, the secondary reference to *Kurfman et al.* is not concerned with a release film, but rather a laminate for other applications, which are used in a completely different manner than in Applicant's multilayer film. Moreover, *Kurfman et al.* is concerned with a completely different area of use in which the exclusive manner of concern is the optimization of films that are made to be reflective. Although *Kurfman et al.* recites that engineering plastics such as, *inter alia*, styrene/acrylonitrile copolymers, ABS polymers, and nitrile resins such as polyacrylonitrile are of interest, there is no disclosure or suggestion of using such polymers in a release film or adding such polymers to the plastic film of *Fürst* for the purposes of obtaining a release film. There is also no disclosure or suggestion of using a barrier layer against mineral oils as recited in Applicant's claims 1, 25, 27, 28 and 30.

Accordingly, it is respectfully submitted that claims 1, 25, 27, 28 and 30 and dependent claims 3-13, 15-24, 26, 29 and 31 are



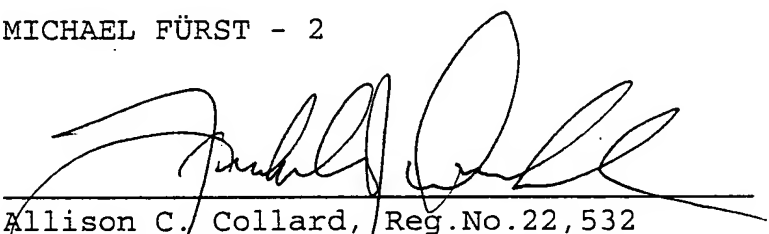
patentable over the cited references.

In summary, claims 1, 12 and 13 have been amended, and new claims 26-31 have been added. A check in the amount of \$700.00 is enclosed in payment of the fee for two independent claims in excess of three and six additional claims in excess of twenty (three additional claims over twenty having previously been paid for). In view of the foregoing, withdrawal of the final action and allowance of this application are respectfully requested.

Respectfully submitted,

MICHAEL FÜRST - 2

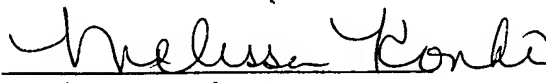
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Enclosures: Copy of Petition for one month extension of time and a check for \$700.00

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Melissa Konko

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: MICHAEL FÜRST - 2

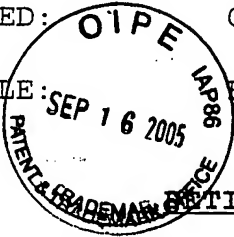
SERIAL NO.: 10/680,013

EXAMINER: T. TRAN

FILED: OCTOBER 7, 2003

GROUP: 1711

TITLE: FILM COMBINATION WITH AT LEAST TWO LAYERS



PETITION UNDER RULE 136(a) AND RULE 17(a)(1)

MAIL STOP: AMENDMENT  
Commissioner for Patents  
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S I R :

Applicant petitions the Commissioner of Patents and Trademarks to extend the time for response to the Office Action dated April 19, 2005 for one month from July 19, 2005 until August 19, 2005. A check in the amount of \$120.00, covering the fee for a one-month extension for a Large Entity is enclosed herewith. Any deficiency or overpayment should be charged or credited to deposit Account No. 03-2468.

Respectfully submitted,

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